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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): 4015-5196

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Application Number	Filed
10/780,783	18 February 2004

First Named Inventor: Raith

Art Unit	Examiner
2473	Ngo

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☑ attorney or agent of record. Registration number 53,639.
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

/Jennifer K. Stewart/
Signature

Jennifer K. Stewart
Typed or printed name

919-854-1844
Telephone number

13 January 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **Raith**

Serial No.: **10/780,783**

Filed: **18 February 2004**

For: **Thermal Transmission Control of Wireless Data Modem**

Docket No: **4015-5196**

PATENT PENDING

Examiner: Nguyen H. Ngo

Group Art Unit: 2473

Confirmation No.: 2741

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13 January 2010 — Date

Laura A. Wade

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ARGUMENTS PRESENTED FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

In response to the Final Office Action mailed 3 November 2009, the applicant submits the following remarks in support of the Pre- Appeal Brief being filed concurrently with a Notice of Appeal. If the accompanying payment does not cover all fees, please charge any remaining fees to Deposit Account 18-1167.

Claims 56 – 67 are currently pending, of which claims 56 and 62 are independent. The claimed invention is directed to reducing the temperature of a transmitter. More particularly, in response to determining that a measured temperature of the transmitter exceeds a temperature threshold, the claimed invention reduces an average power consumption of the transmitter by a controlled amount by adjusting a transmit power per bit of the transmitter in combination with adjusting the transmission data rate of the transmitter.

Claims 56 – 67 stand finally rejected under §103 as obvious over Funk (US6169884) in view of Ohno (US5848062). However, whether taken alone or in combination, the cited art fails

to teach reducing a transmitter's average power consumption by adjusting a transmit power per bit of the transmitter in combination with adjusting the transmission data rate of the tansmitter.

Funk discloses a mobile radio device that includes a radio transmitter, wherein the transmitter temperature is monitored and a transmission power of the radio device is reduced by reducing the transmission power level and/or by inserting brief pauses in a Supervisory Audio Tone (SAT) transmitted by the radio device when it is not transmitting data (Abstract). Funk also teaches that its transmit power reductions are not so extensive as to affect transmission reliability (Abstract). It is important to note that while col. 4, lines 29-41 of Funk teaches SAT transmission pauses, such SAT transmission pauses do not represent transmission data rate adjustments because they only occur when the radio device is not transmitting data.

Ohno discusses "prior art" control to reduce the interior temperature of a remote station, based on turning off the supply power when the remote station is not transmitting or receiving (col. 1, lines 60-67). Ohno notes that power cannot be turned off during active transmission or reception, and discusses the prior art use of a fan to provide cooling during such times. In view of that fan usage, Ohno appears to offer as its improvement, the reduction of transmit data rates during active transmission, to reduce TDMA burst transmission times and thereby lower the temperature without the need for a fan or other extra parts. See Ohno at col. 5, lines 42-67.

The controlled reduction in average transmit power as claimed is based on a combined adjustment to the transmit power per bit and the transmission data rate, neither of which are taught or suggested by the cited art, whether taken alone or in combination. For example, Funk explicitly teaches that its power reductions are not so extensive as to affect transmit reliability. Thus, Funk teaches away from making compensating data rate adjustments. Further, Ohno appears to use the same transmit power level, irrespective of data rate. See, e.g., the latter part of col. 5 in Ohno, where Ohno discusses the use of different defined coding rates to alter the length of its TDMA transmission bursts. It appears that the changed burst length, rather than

any adjustment to transmit power level achieves the power reduction. In particular, see Ohno at the bottom of col. 5, where it appears to state that its transmission power is at a maximum for active transmissions, and see the top of col. 6, where Ohno attributes the power reduction to shorted TDMA bursts. Properly understood, these sections of Ohno's disclosure teach away from the claimed combined adjustment of transmit power per bit and transmission data rate.

For at least these reasons, the pending independent claims, and all claims depending therefrom are new and non-obvious over the cited art. The applicant therefore requests reconsideration.

The applicant further notes that at least dependent claims 58 – 61 and 64 – 67 add patentably distinct limitations to the corresponding independent claims. Claims 58 and 64 stipulate reducing the average power consumption of the transmitter by a controlled amount by determining a combination of transmit power per bit and transmission data rate adjustments that adjust the average power consumption of the transmitter to a desired point on a total transmit power curve. An example of the claimed power curve is discussed on p. 18 of the filed application, and shown in Fig. 6. As illustrated and described, the average power of the transmitter—also referred to as "total transmit power" in the filed application—is shown having a current value of 9 units, where a value of 4 units on the power curve is desired. By adjusting the transmit power per bit, which is understood to be the (instantaneous) transmit power level of the transmitter, in combination with adjusting the transmission data rate of the transmitter, the described power control method moves the average transmit power of the transmitted along the power curve, to the 4 units position. Such claimed limitations are not taught or suggested by Funk and/or Ohno.

Claims 59 and 65 stipulate reducing the average power consumption of the transmitter by decreasing the transmit power per bit of the transmitter and, in response to then receiving a transmit power control command ordering the transceiver to increase its transmit power,

increasing the transmit power per bit of the transmitter as commanded, in combination with decreasing the transmission data rate of the transmitter. Funk and Ohno do not teach or suggest these limitations of claim 59, nor its corresponding method claim 65, nor the further limitations of claim 60 (depending from claim 59) and claim 66 (depending from claim 65).

Finally, dependent claims 61 and 67 stipulate reducing the average power consumption of the transmitter by determining a combination of reductions in the transmit power per bit of the transmitter and the transmission data rate of the transmitter. Funk does not teach transmission data rate adjustments, and can be understood as teaching limitations on transmit power adjustments, so as to avoid transmission reliability problems. Further, instead of teaching adjusting the transmit power per bit, Ohno focuses on reducing TDMA burst length durations through data coding rate adjustments. As such, the combination of Funk and Ohno does not teach or suggest the combined adjustments of claim 61, nor those in the corresponding method claim 67.

In light of the above remarks, the applicant therefore respectfully requests that the Panel overturn all rejections and issue a Notice of Allowance.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.

Dated: 13 January 2010

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